

A system for optically imaging includes an array of cells, a charge shift register, two or more charge sensing nodes, and a charge demultiplexor. Each cell produces an electrical charge in response to photon stimulation. The charge shift register receives the electrical charge produced by each cell and sequentially outputs the electrical charge to the charge demultiplexor. The charge demultiplexor selectively distributes the charge from each cell to one of the charge sensing nodes. The charge sensing nodes accumulate the charge until reset by a controller.